REV	DESCRIPTION	DATE	APPR
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PROGRAM, 7804 PROCESSOR CARD
MEMORY DECODER PROM

PRO-LOG CORPORATION

D. FAHRNER	2-9-81	
John Ans	5/11/81	

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Table 1: MEMORY DECODER PROM PROGRAMMING

	PROM OUTPUT BIT								
	7	6	5	4	3	2	1	0	HEX
FUNCTION	CE3 *	CE2 *	CE1 *	CE0 *	S3*	S2*	S1*	S0*	
ENABLE 7804 ROM/RAM 0	1	1	1	0	1	1	1	0	EE
ENABLE 7804 ROM/RAM 1	1	1	0	1	1	1	0	1	DD
ENABLE 7804 ROM/RAM 2	1	0	1	1	1	0	1	1	BB
ENABLE 7804 ROM/RAM 3	0	1	1	1	0	1	1	1	77

Table 2: 7804 MEMORY ALLOCATION
and DECODER PROM PROGRAMMING

USER OPTION JUMPERS ① MX = 0 ②			MEMORY ALLOCATION AND (DECODER PROM ADDRESS)				
SX	SY	SZ	ROM/RAM 0 (DATA=EE)	ROM/RAM 1 (DATA=DD)	ROM/RAM 2 (DATA=BB)	ROM/RAM 3 (DATA=77)	EXTERNAL --
0	0	0	4k x 8 0000-0FFF (000,001)	4k x 8 1000-1FFF (002,003)	4k x 8 2000-2FFF (004,005)	2k x 8 3000-37FF (006)	3800- FFFF
0	0	1	2k x 8 0000-07FF (020)	2k x 8 0800-0FFF (021)	2k x 8 1000-17FF (022)	2k x 8 1800-1FFF (023)	2000- FFFF
0	1	0	4k x 8 0000-0FFF (040,041)	4k x 8 1000-1FFF (042,043)	4k x 8 2000-2FFF (044,045)	4k x 8 3000-3FFF (046,047)	4000- FFFF
0	1	1	8k x 8 0000-1FFF (060-063)	8k x 8 2000-3FFF (064-067)	8k x 8 4000-5FFF (068-06B)	8k x 8 6000-7FFF (06C-06F)	8000- FFFF
1	0	0	4k x 8 0000-0FFF (080,081)	2k x 8 1000-17FF (082)	2k x 8 1800-1FFF (083)	2k x 8 2000-27FF (084)	2800- FFFF
1	0	1	8k x 8 0000-1FFF (0A0-0A3)	8k x 8 2000-3FFF (0A4-0A7)	8k x 8 4000-5FFF (0A8-0AB)	2k x 8 6000-67FF (0AC)	6800- FFFF
1	1	0	4Kx8 F000-FFFF (0DE,0DF)	NOT USED	NOT USED	NOT USED	(0000- EFFF)
1	1	1	(NOT PROGRAMMED)				(0000- FFFF)

① JUMPER IN PLACE IS "0" OR GROUND. JUMPER REMOVED IS "1" OR +5V.

② EITHER JUMPERED TO GROUND OR MEMEX LOW

Table 2 (continued)

USER OPTION JUMPERS [1]			MEMORY ALLOCATION AND (DECODER PROM ADDRESS)				
	MX=1 [2]		ROM/RAM 0	ROM/RAM 1	ROM/RAM 2	ROM/RAM 3	EXTERNAL
SX	SY	SZ	DATA=EE)	(DATA=DD)	(DATA=BB)	DATA=77)	--
0	0	0		(NOT PROGRAMMED)			(0000-FFFF)
0	0	1					
0	1	0					
0	1	1					
1	0	0					
1	0	1					
1	1	0					
1	1	1	4Kx8 0000-0FFF (IE0,IE1)	NOT USED	NOT USED	NOT USED	1000-FFFF

1 JUMPER IN PLACE IS "0" OR GROUND. JUMPER REMOVED IS "1" OR +5V.

2 EITHER PULLED UP (JUMPER REMOVED) OR MEMEX HIGH

Table 3: PROM VENDORS AND PERSONALITY MODULES

PROM	PERSONALITY MODULE	PINOUT ADAPTER	CONFIGURATOR
MMI 6348-1	PM9037	PA20-1	512x8(H)
HARRIS 7648-5	PM9039A	PA20-1	512x8(H)
TI TPB 28SA42	PM9046	PA20-1	512x8(L)

The following pages show the program contained in the 7804 memory decoder PROM. The checksum for this PROM is 1F1D9.

HEXADECIMAL PAGE ADR	HEXADECIMAL LINE ADR	HEXADECIMAL INSTR.	MNEMONIC LABEL	MNEMONIC INSTR.	MNEMONIC MODIFIER	TITLE PROGRAM - 7804 MEM. DECODING DATE / COMMENTS
0	0 0	EE				ENABLE ROM/RAM 0
	0 1	EE				
	0 2	DD				ENABLE ROM/RAM 1
	0 3	DD				
	0 4	BB				ENABLE ROM/RAM 2
	0 5	BB				
	0 6	77				ENABLE ROM/RAM 3
	0 7	FF				EXTERNAL MEMORY
	0 8					
	0 9					
	0 A					
	0 B					
	0 C					
	0 D					
	0 E					
	0 F					
0	1 0					
	1 1					
	1 2					
	1 3					
	1 4					
	1 5					
	1 6					
	1 7					
	1 8					
	1 9					
	1 A					
	1 B					
	1 C					
	1 D					
	1 E					
	1 F	FF				

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HEXADECIMAL PAGE ADR	HEXADECIMAL LINE ADR	HEXADECIMAL INSTR.	MNEMONIC LABEL	MNEMONIC INSTR.	MNEMONIC MODIFIER	TITLE DATE / COMMENTS
0	2 0	EE				ENABLE ROM/RAM 0
	2 1	DD				ENABLE ROM/RAM 1
	2 2	BB				ENABLE ROM/RAM 2
	2 3	77				ENABLE ROM/RAM 3
	2 4	FF				EXTERNAL MEMORY
	2 5					
	2 6					
	2 7					
	2 8					
	2 9					
	2 A					
	2 B					
	2 C					
	2 D					
	2 E					
	2 F					
0	3 0					
	3 1					
	3 2					
	3 3					
	3 4					
	3 5					
	3 6					
	3 7					
	3 8					
	3 9					
	3 A					
	3 B					
	3 C					
	3 D					
	3 E					
	3 F	FF				

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HEXADECIMAL PAGE ADR	HEXADECIMAL LINE ADR	HEXADECIMAL INSTR.	MNEMONIC LABEL	MNEMONIC INSTR.	MNEMONIC MODIFIER	TITLE / COMMENTS	DATE
0	40	EE				ENABLE ROM/RAM 0	
	41	EE					
	42	DD				ENABLE ROM/RAM 1	
	43	DD					
	44	BB				ENABLE ROM/RAM 2	
	45	BB					
	46	77				ENABLE ROM/RAM 3	
	47	77					
	48	FF				EXTERNAL MEMORY	
	49						
	4A						
	4B						
	4C						
	4D						
	4E						
	4F						
	50						
	51						
	52						
	53						
	54						
	55						
	56						
	57						
	58						
	59						
	5A						
	5B						
	5C						
	5D						
	5E						
	5F	FF					

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HEXADECIMAL PAGE ADR	HEXADECIMAL LINE ADR	HEXADECIMAL INSTR.	MNEMONIC LABEL	MNEMONIC INSTR.	MNEMONIC MODIFIER	TITLE / COMMENTS	DATE
0	60	EE				ENABLE ROM/RAM 0	
	61	EE					
	62	EE					
	63	EE					
	64	DD				ENABLE ROM/RAM 1	
	65	DD					
	66	DD					
	67	DD					
	68	BB				ENABLE ROM/RAM 2	
	69	BB					
	6A	BB					
	6B	BB					
	6C	77				ENABLE ROM/RAM 3	
	6D	77					
	6E	77					
	6F	77					
0	70	FF				EXTERNAL MEMORY	
	71						
	72						
	73						
	74						
	75						
	76						
	77						
	78						
	79						
	7A						
	7B						
	7C						
	7D						
	7E						
	7F	FF					

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HEXADECIMAL PAGE ADR	HEXADECIMAL LINE ADR	HEXADECIMAL INSTR.	MNEMONIC LABEL	MNEMONIC INSTR.	MNEMONIC MODIFIER	TITLE / COMMENTS
0	80	EE				ENABLE ROM/RAM 0
	81	EE				
	82	DD				ENABLE ROM/RAM 1
	83	BB				ENABLE ROM/RAM 2
	84	77				ENABLE ROM/RAM 3
	85	FF				EXTERNAL MEMORY
	86					
	87					
	88					
	89					
	8A					
	8B					
	8C					
	8D					
	8E					
	8F					
0	90					
	91					
	92					
	93					
	94					
	95					
	96					
	97					
	98					
	99					
	9A					
	9B					
	9C					
	9D					
	9E					
	9F	FF				

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HEXADECIMAL PAGE ADR	HEXADECIMAL LINE ADR	HEXADECIMAL INSTR.	MNEMONIC LABEL	MNEMONIC INSTR.	MNEMONIC MODIFIER	TITLE / COMMENTS
0	A0	EE				ENABLE ROM/RAM 0
	A1	EE				
	A2	EE				
	A3	EE				
	A4	DD				ENABLE ROM/RAM 1
	A5	DD				
	A6	DD				
	A7	DD				
	A8	BB				ENABLE ROM/RAM 2
	A9	BB				
	AA	BB				
	AB	BB				
	AC	77				ENABLE ROM/RAM 3
	AD	FF				EXTERNAL MEMORY
	AE					
	AF					
0	B0					
	B1					
	B2					
	B3					
	B4					
	B5					
	B6					
	B7					
	B8					
	B9					
	BA					
	BB					
	BC					
	BD					
	BE					
	BF	FF				

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HEXADECIMAL			MNEMONIC			TITLE	DATE
PAGE ADR	LINE ADR	INSTR.	LABEL	INSTR.	MODIFIER	COMMENTS	
0	C 0	FF				ETERNAL MEMORY	
	C 1						
	C 2						
	C 3						
	C 4						
	C 5						
	C 6						
	C 7						
	C 8						
	C 9						
	C A						
	C B						
	C C						
	C D						
	C E						
	C F						
0	D 0						
	D 1						
	D 2						
	D 3						
	D 4						
	D 5						
	D 6						
	D 7						
	D 8						
	D 9						
	D A						
	D B						
	D C						
	D D						
	D E	EE				ENABLE ROM/RAM 0	
	D F	EE					

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HEXADECIMAL			MNEMONIC			TITLE	DATE
PAGE ADR	LINE ADR	INSTR.	LABEL	INSTR.	MODIFIER	COMMENTS	
0	E 0	FF				EXTERNAL MEMORY	
	E 1						
	E 2						
	E 3						
	E 4						
	E 5						
	E 6						
	E 7						
	E 8						
	E 9						
	E A						
	E B						
	E C						
	E D						
	E E						
	E F						
0	F 0						
	F 1						
	F 2						
	F 3						
	F 4						
	F 5						
	F 6						
	F 7						
	F 8						
	F 9						
	F A						
	F B						
	F C						
	F D						
	F E						
0	F F	FF					

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HEXADECIMAL			MNEMONIC			TITLE	DATE
PAGE ADR	LINE ADR	INSTR.	LABEL	INSTR.	MODIFIER	COMMENTS	
1	0 0	FF				EXTERNAL MEMORY	
	1						
	2						
	3						
	4						
	5						
	6						
	7						
	8						
	9						
	A						
	B						
	C						
	D						
	E						
	F						
	0						
	1						
	2						
	3						
	4						
	5						
	6						
	7						
	8						
	9						
	A						
	B						
	C						
	D						
	E						
1	D F	FF					

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HEXADECIMAL			MNEMONIC			TITLE	DATE
PAGE ADR	LINE ADR	INSTR.	LABEL	INSTR.	MODIFIER	COMMENTS	
1	E 0	EE				ENABLE ROM/RAM 0	
	E 1	EE					
	E 2	FF				EXTERNAL MEMORY	
	E 3						
	E 4						
	E5						
	E 6						
	E 7						
	E 8						
	E 9						
	E A						
	E B						
	E C						
	E D						
	E E						
	E F						
1	F 0						
	F 1						
	F 2						
	F 3						
	F 4						
	F 5						
	F 6						
	F 7						
	F 8						
	F 9						
	F A						
	F B						
	F C						
	F D						
	F E						
	F F	FF					

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